

Amendments to the Claims:

Kindly rewrite claims 19-28 and 30-38 so that a complete set of the pending claims will read as follows (this listing of claims will replace all prior versions, and listings, of claims in the application):

Listing of Claims:

Claims 1-18 (previously canceled)

Claim 19 (currently amended): Apparatus for collecting and converting radiant energy comprising:

a plurality of spaced apart, incorporated in at least one array ~~elongated reflective linear mirrored~~ surfaces having generally concave transversal profiles, front longitudinal ends and opposing rear longitudinal ends being generally inclined toward one another;

at least a substantial part of said ~~reflective mirrored~~ surfaces being designed and positioned to reflect incident radiant energy that impinges upon said ~~reflective mirrored~~ surfaces from the side of said front longitudinal ends into a plurality of convergent beams and direct said plurality of said convergent beams by means of a single specular reflection to a plurality of preselected converging directions through spaces between adjacent pairs of said rear longitudinal ends.

Claim 20 (currently amended): The apparatus of claim 19 further comprising an elongated energy receiving means disposed in energy receiving relation to each of said ~~reflective mirrored~~ surfaces so that said convergent energy beams reflected from two or more adjacent ~~reflective mirrored~~ surfaces at least partially superimpose on one another on said energy receiving means.

Claim 21 (currently amended): The apparatus of claim 20 wherein said energy receiving means is positioned according to a relation: $\beta < 90^\circ$ where β is an angle between the direction to the source of said radiant energy and direction to a point at said ~~reflective mirrored~~ surfaces taken at a point of the energy receiving surface of said energy receiving means.

Claim 22 (currently amended): The apparatus of claim 20 wherein said energy receiving means comprises at least one photovoltaic cell having working area facing toward said ~~reflective mirrored~~ surfaces and the source of said radiant energy.

Claim 23 (previously presented): The apparatus of claim 22 further comprising at least one heat sink which is in heat exchange relation with said photovoltaic cell.

Claim 24 (previously presented): The apparatus of claim 20 wherein said energy receiving means comprises at least one fluid-carrying tube of a solar heat collector.

Claim 25 (currently amended): The apparatus of claim 20 wherein said energy receiving means is mechanically separated from said plurality of said reflective mirrored surfaces.

Claim 26: canceled

Claim 27 (currently amended): The apparatus of claim 19 wherein the slopes of all said reflective mirrored surfaces are defined so that angles of incidence α of said radiant energy on said reflective mirrored surfaces have particular values more than 45° and less than 90° .

Claim 28 (currently amended): The apparatus of claim 19 wherein one or more said reflective mirrored surfaces is disposed in any one of a translated, a reversed and/or a rotated orientation relatively to the others having the same basic arrangement.

Claim 29 (previously canceled)

Claim 30 (currently amended): The apparatus of claim 19 wherein said reflective mirrored surfaces are designed and positioned to minimize screening and shadowing on other reflective mirrored surfaces, wherein the front end of an inner reflective mirrored surface and the rear end of an adjacent outer reflective mirrored surface are aligned relatively to each other with respect to the incident flux and the rear end of said inner reflective mirrored surface is disposed out of the path of energy rays reflected from the front end of said outer surface.

Claim 31 (previously presented): The apparatus of claim 19 wherein at least one of said transversal profiles is a segment of conical section curve.

Claim 32 (previously presented): The apparatus of claim 31 wherein said segment is parabolic.

Claim 33 (previously presented): The apparatus of claim 31 wherein said segment is circular.

Claim 34 (previously presented): The apparatus of claim 19 wherein the shape of at least one of said transversal profiles is represented by a function selected from the group consisting of a polynomial function of at least second order, a parametric curve, and a spline tailored to provide a desired irradiance distribution on said energy receiving means.

Claim 35 (previously presented): The apparatus of claim 19 wherein at least one of said transversal profiles comprises a set of conjugated lines selected from the group consisting of straight, parabolic, circular, elliptical, and hyperbolic segments.

Claim 36 (currently amended): The apparatus of claim 19 further comprising at least one axle support means for positioning said at least one array of said reflective mirrored surfaces according to the movement of source of said radiant energy.

Claim 37 (currently amended): The apparatus of claim 19 further comprising support means supporting said plurality of said reflective mirrored surfaces and arranged so that said reflective mirrored surfaces can be individually adjusted by rotating around their respective longitudinal axes and/or moving relatively to one another.

Claim 38 (currently amended): The apparatus of claim 20 wherein said reflective mirrored surfaces are arranged in two or more arrays that can be individually tilted, rotated, and positioned differently relatively to each other and said energy receiving means.

Claim 39 (new): The apparatus of claim 19 wherein at least one of the linear mirrored surfaces comprises a composite of linear planar reflectors extending parallel to said mirrored surfaces and having the same basic orientation thereby forming said generally concave transversal profile.